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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,268	11/14/2001	Burkhard Standke	209348US0	6959

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

ZIMMER, MARC S

ART UNIT	PAPER NUMBER
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1712

16

DATE MAILED: 04/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/987,268

Applicant(s)

STANDKE ET AL.

Examiner

Marc S. Zimmer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 15, 17-26 and 36-40 is/are withdrawn from consideration.
- 5) ☒ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1, 3, 5, 6, 9-14, 16, 27-30, 32 and 35 is/are rejected.
- 7) ☐ Claim(s) 2, 4, 7, 8, 31 and 33-35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Information Disclosure Statement***

It is requested that, whenever Applicant is providing an information disclosure statement containing numerous references, they not staple the documents together in groupings of 4 or 5 with overlapping staples such that all of the references are bound together. Submissions like these must first be separated so that references may be individually reviewed. This is a time consuming, and potentially injurious, process for any Examiner.

***Election/Restrictions***

Applicant's election with traverse of Group I in Paper No. 9 is acknowledged. The traversal is on the ground(s) that, insofar as all of the claims are dependent from claim 1, which was categorized into group I, it is inappropriate to separate them. The Examiner vehemently disagrees.

There is nothing in the MPEP that disallows the separation of claims merely because they are written in such a manner that they are all dependent from a single base claim. Furthermore, the standard applied in international restriction practice, i.e. unity of invention, is not followed in U.S. restriction practice. Hence, while the various incarnations of the instant invention do indeed revolve around the product of the base claim, they may, nonetheless, be separated if it is possible to demonstrate that a dependent claim to, for instance, a method of making represents only one possible approach for preparing that product. This was the rationale behind the separation of claims 1-14, 16, and 27-35 from claim 15.

Applicant argues that the Examiner has not proven that the claimed products could be made while employing the proposed modifications of the claimed process. However, it is well known that the hydrolyzable groups of the condensation reactive organosilicon compounds are interchangeable. Likewise, a multitude of different catalysts are known to facilitate the condensation of organosilicon compounds. Indeed, the novelty in the claimed process would lie instead in either the selection of a propyl-substituted silane bearing three hydrolyzable groups or, alternatively, the utilization of less than one stoichiometric equivalent of water per mol of silane. Thus, a reference teaching the formation of a low condensate of propyltriacetoxysilane could potentially be applicable to the claims of group 1 and, at the same time, not anticipate claim 15 because a motivation for replacing acetoxy groups with ethoxy/chloro groups is lacking.

Claims 15, 17-26, and 36-40 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected method of making or using, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 9.

Applicant is advised that the Examiner has every intention of rejoining the claims presently withdrawn from consideration should the composition claims be deemed allowable.

The requirement is still deemed proper and is therefore made FINAL.

#### ***Claim Objections***

Claim 35 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is

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required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5, 28-30, 32, and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Chang et al., U.S. patent # 4,604,443. Chang discloses the preparation of solutions of low hydrolyzates/condensates of compounds adhering to the formula  $\text{RSiY}_3$ . According to column 3, lines 1-4, propyl ( $\text{C}_3$ ) groups are among the most preferred embodiments of the variable "R". Additionally, it is stated that, of the groups delineated in column 3 lines 29-68 as representative of "Y", alkoxy groups and, in particular  $\text{C}_1$ - $\text{C}_2$  alkoxy groups are most favored. It is notable that low condensates of the compound wherein "R" is propyl and "Y" is ethoxy are aptly characterized as n-propylethoxysiloxanes. In columns 11 and 12, some preferred partial condensates are divulged in terms of the distribution of the different-sized oligomers. Of particular relevance to the instant invention is product (c) in column 12 which is comprised of between 10 and 80% by weight of the dimer and 10 to 80% by weight of the trimer. This product is obtained by the removal by distillation of the monomer material after partial hydrolysis is carried out (column 12, lines 52-60) Chang remarks that it will be

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understood that higher condensates than the trimer will also be formed though no amounts are mentioned (column 13, lines 1-2).

As for claims 28, 29, and 35, the condensation product mixtures are especially suitable as crosslinking materials for polyols (column 13, lines 23-25) and especially acrylic polyols that are used to coat furniture (column 13, lines 51-57).

As for claim 30, Chang et al. advocate the utilization of their product as a concentrate (sole resin) in column 13, lines 27-30.

As for claim 32, the condensation product may, of course, be used in concert with a condensation catalyst (column 13, lines 32-35).

***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 9-12, 13, 14, 16, and 27 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chang et al., U.S. Patent # 4,604,443.

Regarding claim 6, it is acknowledged that the geometry of the trimer product(s) is not revealed. However, the distribution of linear compound to cyclic compound will be dictated by thermodynamics hence this aspect of the invention is inherent.

As for claim 9, Chang admits that, while dimers and trimers comprise the greatest fraction of the total weight of the mixture, higher condensates, e.g. tetramers, pentamers, and hexamers, are also formed. Claim 9 requires as little as 0.1 wt% of the various pentamers and hexamers hence this claim is at least obvious, and possibly anticipated, over/by the reference. Claims 10-12 are, likewise, at least obvious because condensates having greater than six silicon atoms are apparently not produced to any significant extent as evidenced by Chang's cursory mention of them (higher condensates) in column 13, lines 1 and 2.

As for claim 13, insofar as mixture (c) is obtained by removal of the silane and the silane has a boiling point substantially higher than that of ethanol, this aspect of the invention would be inherent in mixture (c).

As for claim 14, viscosity is an inherent property of a composition having a particular makeup. Because the composition of claim 1 is anticipated, the viscosity range recited in claim 14 is inherent in mixture (c).

It is noted that claim 16 is a product-by-process claim. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior

product was made by a different process" *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Therefore, despite Chang's failure to disclose the process of claim 15, claim 16 is, nonetheless, anticipated.

As for claim 27, a layer prepared by way of application of Chang's composition to a substrate will inherently possess low surface tension and, hence, a release property since the product is equivalent to Applicant's.

***Allowable Subject Matter***

Claims 2, 4, 7-8, 31, 33, and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Chang does not teach a product distribution wherein better than 90 wt.% are trimers or higher nor does the reference teach a condensation product that has been combined with other organosilicon compounds.

Cited only as being of interest at this time are Bank et al., U.S. Patent # 5,225,510, Horn et al., U.S. Patent # 5,282,998, and Krafczyk et al., U.S. Patent Application Publication # 2003/0018155. Bank actually teaches a product (see Table I, entry B) that anticipates the most fundamental embodiments of the instant invention but will it will not be applied herein as it is an inferior reference in comparison to Chang and does not "read on" any claims not already met by the '443 reference. Horn discloses the formation of silicone oligomers from vinyl group-functionalized alkoxysiloxanes as opposed to the propyl-functionalized homologues presently claimed. Krafczyk teaches the preparation of



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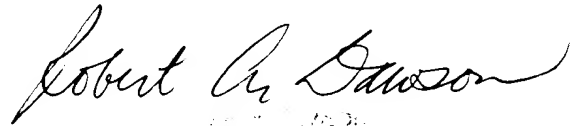
alkoxysiloxane oligomers that are derived from a mixture of propyltrialkoxysilane and chloropropyltrialkoxysilane. This reference was published after the effective filing date of this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 703-605-1176. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Dawson can be reached on 703-308-2340. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

April 10, 2003



Robert A. Dawson  
Supervisor, Examining Division  
703-308-2340